

CLAIMS

What is claimed is:

1. A data processing apparatus comprising:

a body having a surface defining a first plane, the body comprising a first group of control elements and a second group of control elements for entering data and performing control operations;

a display having a display area defining a second plane, the display coupled to the data processing apparatus at a pivot point and rotatable around the pivot point from a first position to a second position, wherein the display is viewable in both the first position and the second position and wherein both the first and second groups of control elements are exposed when the display is in the second position, and wherein only the second group of control elements are exposed when the display is in the first position,

wherein the first plane and the second plane are substantially parallel when the display is in the first position, and wherein the first plane and the second plane are not parallel when the display is in the second position.

2. The data processing apparatus as in claim 1 wherein an angle between the first plane and the second plane is adjustable over a specified range when the display is in the second position.

3. The data processing apparatus as in claim 1 wherein the first group of control elements are covered by the display when the display is in the first position.

4. The data processing apparatus as in claim 1 wherein the first group of control elements comprise a keyboard.

5. The data processing apparatus as in claim 3 wherein the second group of control elements are not covered by the display when the display is in the first position.

6. The data processing apparatus as in claim 4 wherein the second group of control elements comprise a control knob and a set of control buttons.

7. The data processing apparatus as in claim 1 wherein the display is substantially inverted when in the second position relative to the first position.

8. The data processing apparatus as in claim 7 further comprising:
a switch configured to trigger when the display is rotated from the second position to the first position.

9. The data processing apparatus as in claim 7 further comprising:
image inversion logic to invert images on the display responsive to the switch triggering.

10. The data processing apparatus as in claim 1 having a first operational mode and a second operational mode associated with the first position and second position, respectively.

11. The data processing apparatus as in claim 10 wherein the first and/or second plurality of control elements perform a first plurality of defined functions when the data processing apparatus is in the first operational mode and perform a second plurality of defined function when the data processing apparatus is in the second operational mode.

12. A data processing apparatus comprising:
a display defining a first plane and having a viewable area for displaying text and graphics;
a body defining a second plane and having a first group of control elements and a second group of control elements for entering data and performing control operations; and
a display motion mechanism moveably coupling the display to the body and carrying the display from a first position to a second position, wherein the display is viewable in both the first position and the second position and wherein both the first and second groups of control elements are exposed when the display is in the second position, and wherein only the second group of control elements are exposed when the display is in the first position,
wherein the first plane and the second plane are substantially parallel when the display is in the first position, and wherein the first plane and the second plane are not parallel when the display is in the second position.

13. The data processing apparatus as in claim 12 wherein the display motion mechanism comprises:
a rotation element providing rotation of the display within a first dimension relative to the body; and

a pin rotatably coupled to the rotation element, the pin providing rotation of the display within a second dimension relative to the body.

14. The data processing apparatus as in claim 13 further comprising:
a chamber for rotatably coupling the pin to the rotation element, wherein the pin is fixedly coupled to the display.

15. The data processing apparatus as in claim 12 wherein the display motion mechanism comprises:
one or more tracks formed on the of the data processing apparatus; and
one or more pins formed on the display and engaging with the tracks to guide the display from the first position to the second position.

16. The data processing apparatus as in claim 12 wherein, when in the second position, the display motion mechanism carries the display over a range defined by a first angle between the first plane and the second plane and a second angle between the first plane and the second plane.

17. The data processing apparatus as in claim 12 wherein the first group of control elements are covered by the display when the display is in the first position.

18. The data processing apparatus as in claim 17 wherein the first group of control elements comprise a keyboard.

19. The data processing apparatus as in claim 17 wherein the second group of control elements are not covered by the display when the display is in the first position.

20. The data processing apparatus as in claim 19 wherein the second group of control elements comprise a control knob and a set of control buttons.

21. The data processing apparatus as in claim 12 wherein the display is substantially inverted when in the second position relative to the first position.

22. The data processing apparatus as in claim 21 further comprising:
a switch configured to trigger when the display is rotated from the second position to the first position.

23. The data processing apparatus as in claim 22 further comprising:
image inversion logic to invert images on the display responsive to the switch triggering.

24. The data processing apparatus as in claim 12 having a first operational mode and a second operational mode associated with the first position and second position, respectively.

25. The data processing apparatus as in claim 24 wherein the first and/or second plurality of control elements perform a first plurality of defined functions when the data processing apparatus is in the first operational mode and perform

a second plurality of defined function when the data processing apparatus is in the second operational mode.

26. A data processing apparatus comprising:

a display defining a first plane and having a viewable area for displaying text and graphics;

a body defining a second plane and having a first group of control elements and a second group of control elements for entering data and performing control operations; and

display motion means moveably coupling the display to the body and carrying the display from a first position to a second position, wherein the display is viewable in both the first position and the second position and wherein both the first and second groups of control elements are exposed when the display is in the second position, and wherein only the second group of control elements are exposed when the display is in the first position,

wherein the first plane and the second plane are substantially parallel when the display is in the first position, and wherein the first plane and the second plane are not parallel when the display is in the second position.